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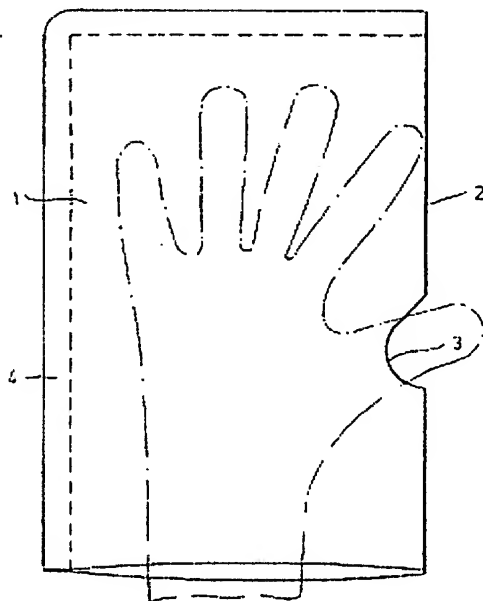
DISPOSABLE WASHCLOTH IN THE FORM OF A POCKET

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The rectangular pocket (1) made of paper can be used as a glove. An opening (2) for the thumb of the hand of the bather inserted in the pocket (1) is disposed along the fold line (2) of the pocket (1). Two (4) of the three superposed outline edges of the pocket (1) are glued together. The pocket (1) is preimpregnated with a cleansing agent which, when dry, adheres to the pocket material and which can be reactivated in water. The cleansing agent is based on alkylbenzene sulfonates, fatty acid alcohol sulfonates, fatty acid alkyl amides or succinates.



The invention relates to a disposable washcloth made of an absorbent water-resistant material, such as cellulose, a synthetic material, a woven fabric or paper, in the form of a rectangular pocket which can be used as a glove and which has been created by folding a strip of the material and by sewing, gluing or heat-sealing two of its three superposed outline edges together, with the material being preimpregnated with a lather-forming cleansing agent which, when dry, adheres to the material and which can be reactivated in water. Such a disposable washcloth is used for soaping the body of a bather.

This type of disposable washcloth is known from the French Patent No. 2 414 897 and from the German Patent Application No. 2 402 730. The latter document describes a disposable washcloth made of a nonwoven fabric which has the form of a rectangular pocket that can be used as a glove. The pocket is made of a piece of nonwoven fabric that has been folded and glued, sewn or heat-sealed together along two of its edges. The pocket is preimpregnated with a cleansing agent which, when dry, is cosmetically acceptable and forms a lather [sic].

This type of disposable washcloth must have a high tear resistance in cold, but in particular, also in warm shower and bath water. Furthermore, the material of the disposable washcloth must be highly absorbent and must have a high retention capacity for aqueous impregnation preparations.

The prior-art disposable washcloths have the disadvantage that they cannot be firmly grasped by hand when in use and that they contain expensive and/or complicated cleansing agents.

The task of the invention disclosed in Claim 1 is to make available a disposable washcloth which, when in use, can be firmly grasped by hand and which contains a cleansing agent selected to ensure excellent lathering power and a cleaning action superior to that of the prior-art cleansing agents. Another objective is to prevent the skin of the bather from drying. Yet another objective is to keep the costs of the cleaning agent low.

This task is achieved by a disposable washcloth of the type mentioned earlier, in that the pocket has an opening for the thumb along the fold line of the strip of material and that the cleansing agent is one based on alkylbenzene sulfonates, fatty acid alcohol sulfonates, fatty acid alkyl amides or succinates.

An advantageous cleansing agent solution is disclosed in Claim 2.

The subject matter of the present invention will be explained in greater detail based on an example shown in the drawing. As can be seen,

Figure 1 shows a pocket according to the present invention in the form of a glove and

Figure 2 shows a perspective view of the pocket according to Figure 1 which is packaged in a polyethylene bag.

The base material of pocket 1 shown in the figures is an absorbent water-resistant paper. It is, however, also possible to use other base materials, such as cellulose, a synthetic material or a woven fabric, which base materials must be as rugged as possible and do not need to be interwoven. Such a base material is resistant to cold and, in particular, hot shower and bath water and holds up well when used to scrub the body and when wringing out the washcloth.

The pocket 1 shown in Figure 1 has the form of a glove; pocket 1 is rectangular and was created by folding a paper strip along fold line 2. Two 4 of its three superposed outline edges are

glued together. But said edges can, for example, also be sewn or heat-sealed together. Along the fold line 2, an opening 3 is punched out for the thumb of a hand inserted into pocket 1.

Pocket 1 is preimpregnated with a lather-forming cleansing agent which, when dry, adheres to the material of pocket 1 and which is reactivated only when it comes into contact with water. As the body of the bather is scrubbed, soapy lather and detergent surfactants are continuously released. The cleansing agents used are based on alkylbenzene sulfonates, fatty acid alcohol sulfonates, fatty acid alkyl amides or succinates. An advantageous example of the cleansing agents is a lather-forming, cleansing, soapy, mildly perfumed solution which comprises approximately 10 wt% sodium lauryl ether sulfate, approximately 5 wt% N- $\beta$ -hydroxyethyl-N- $\beta$ -carboxyethyl fatty acid amidoethylamine, Na salt, approximately 2 wt% coconut fatty acid diethanolamide, approximately 1 wt% perfumes and dyes, and approximately 82 wt% water.

The sodium lauryl ether sulfate which is the parent material of the detergent surfactants is practically nontoxic, free of salt, and biodegradable. This product is marked by the following advantages: excellent lathering capacity regardless of the water hardness, with the possibility of perfuming it slightly. Because of its special properties, the Na salt of N- $\beta$ -hydroxyethyl-N- $\beta$ -carboxyethyl fatty acid amidoethylamine is used as an additive. Thus, the lather-formation and, because of the excellent wetting properties, the cleansing effect are intensified. This product is nontoxic, practically free from salt, and biodegradable. To replenish the skin oil and to thicken [the lather], coconut fatty acid diethanolamide is used as an additive. This additive prevents the skin from drying and has a lather-stabilizing effect.

This salt-free, nontoxic and biodegradable combination of the impregnating solution of pocket 1 is an ideal compound. It is mild, skin-compatible and has an excellent cleansing effect. The pocket 1 preimpregnated with this solution draws [sic; looks] and feels dry and colorless.

As Figure 2 illustrates, the preimpregnated washcloth is packaged in a polyethylene bag 5. But a different material can be used for the packaging as well. Such bags can be purchased from vending machines. The packaging is also highly suitable for advertising purposes.

Once pocket 1 has been used to soap the body of the bather and thus is soap-free and then wrung out, it can be used as a cleaning rag or for drying and can be discarded after its ultimate use.

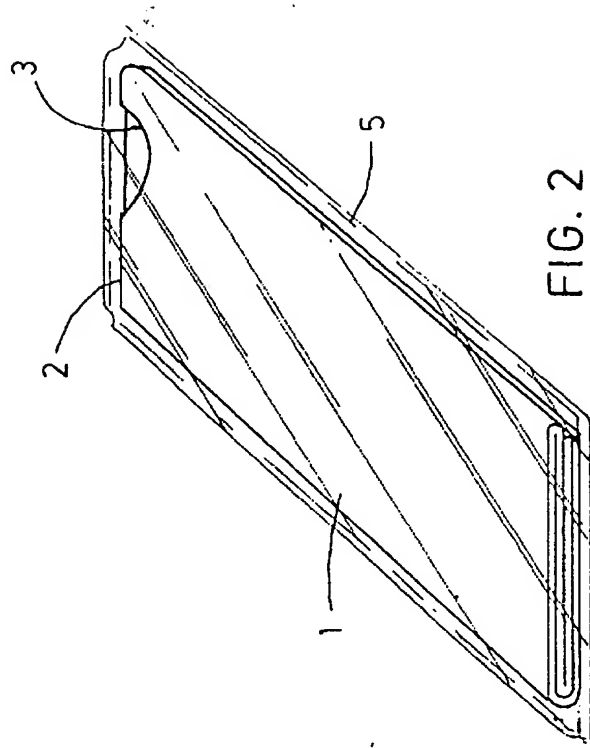
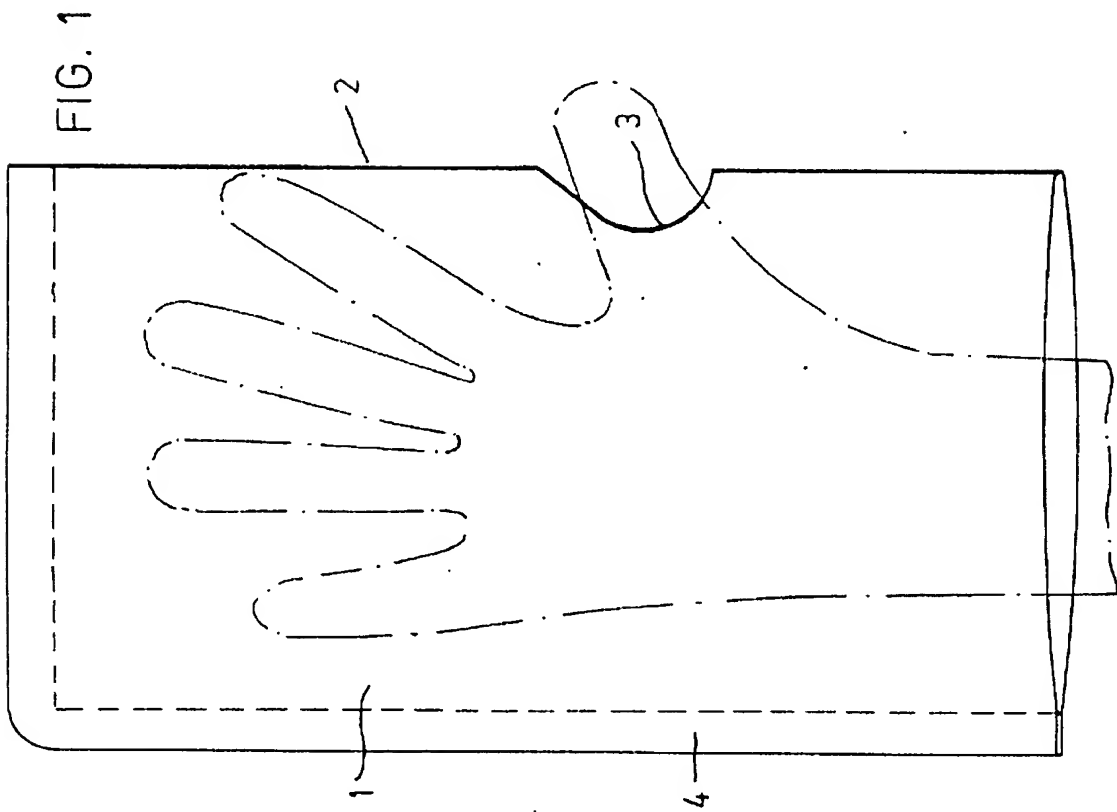
With the above-described disposable washcloth in the form of a rectangular pocket that can be used as a glove, it is possible to eliminate the unpleasant side effects of conventional washcloths and soap bars, such as wet, slippery soap bars, lime deposits on the sink, in showers and bathtubs, soap dishes, and soap compartments, etc. This also applies to washcloths or towels which, especially when traveling, must be packed while wet and soiled. The pocket housed in a plastic bag occupies only a minimum of space and can be packed in a handbag or in luggage.

The subject matter of the present invention is especially suitable for use in hotels, hospitals, offices, construction sites, sports grounds, public swimming pools, train stations, airports, camping grounds, etc. It is also possible to additionally impregnate the pocket with cosmetic or other substances.

### Claims

1. A disposable washcloth made of an absorbent, waster-resistant material, such as cellulose, a synthetic material, a woven fabric or paper, in the form of a rectangular pocket which can be used as a glove and which is created by folding a strip of the material and by sewing, gluing or heat-sealing two of the three superposed outline edges together, with the material being preimpregnated with a lather-forming cleansing agent which, when dry, adheres to the material and which can be reactivated in water, characterized in that the pocket has an opening for the thumb along the fold line of the material strip, and that the cleansing agent is prepared on the basis of alkylbenzene sulfonates, fatty acid alcohol sulfonates, fatty acid alkyl amides or succinates.

2. The disposable washcloth as in Claim 1, characterized in that the cleansing agent is a solution of approximately 10 wt% sodium lauryl ether sulfate, approximately 5 wt% N- $\beta$ -hydroxyethyl-N- $\beta$ -carboxyethyl fatty acid amidoethyl amine, Na salt, approximately 2 wt% coconut acid diethanolamide, approximately 1 wt% perfumes and dyes, and approximately 82 wt% water.



European  
Patent Office  
EUROPEAN SEARCH REPORT

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EP 82 20 0018

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int Cl <sup>3</sup> )
D, A	DE-A-2 402 730 (CIBA-GEIGY) * page 3, paragraph 4; page 6, last paragraph - page 10, last paragraph; Examples 1-3; Claims *	1	A 47 K 7/03 C 11 D 17/04 A 47 L 13/19
A	FR-A-2 378 489 (DEMIOL-FLAVARD) * Entire document *	1	
A	FR-A-1 549 553 (ETHNOR) * Entire document *	1	
A	GB-A- 899 016 (H. GILLON) * Entire document*	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl. <sup>3</sup> )
			C 11 D 1/00 C 11 D 17/00 A 47 K 7/00 A 47 L 13/00
The present search report has been drawn up for all claims.			
Place of search THE HAGUE		Date of completion of the search 04-10-1982	Examiner GOLLER P.
CATEGORY OF CITED DOCUMENTS			
X: Particularly relevant if taken alone.		T: Theory or principle underlying the invention.	
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A: Technological background.		D: Document cited in the application.	
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